DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-027146
Date Inspected: 06-Feb-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time:
OSM Departure Time:
Location: Job Site

CWI Name:	Salvador Merino			**CWI Present:**	☑ Yes	☐ No		
Inspected CWI report:	☐ Yes	☐ No	☑ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A	
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A	
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A	
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A	

Bridge No: 34-0006
Component: OBG Components

Summary of Items Observed:

On this date, Quality Assurance Inspector (QAI) Kenneth Riley was present at the San Francisco Oakland bay Bridge job site at Yerba Buena Island to observe erection and welding activities for the San Francisco Oakland Bay Bridge (SFOBB) project. This Quality Assurance Inspector (QAI) observed the following work performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below:

A) Lifting Lug Holes
B) Field Splice 13W-14W

A). Lifting Lug Holes 13W (SPCM)
The QAI observed that welder Mike Jimenez, was observed preparing the fit-up for lifting lug hole 13W PP122.5 W4 #4. The welder had ground the edges of the hole and was preparing the insert to be fit up. This QAI observed that a copper plate was used as backing for this location as defined in Welding Procedure Specification (WPS) ABF-WPS-D15-1050A-CU. The QC inspector Steve Jenson verified the fit up for this location and found it to be acceptable, this information was relayed to the QAI. The welder then pre-heated the area prior to welding using a weed burner at 40 degrees Celsius (150 degrees F) which was verified using a tempstik and infrared gun by the QC. The welder was using the Shielded Metal Arc Welding (SMAW) using electrode E7018 for the Complete Joint Penetration weld in the flat (1G) position with 3.2mm electrode for the root and hot pass with 152 amps. The welder was using a chipping hammer, power grinder and power wire wheel for the interpass cleaning. The QC inspector for this location was Salvador Merino and was observed verifying and documenting the welding parameters for this location, along with overseeing the welding operations. At the time of the observations no issues were noted by the QAI.

B). Field Splice 13W/14W

The QAI observed welder Jeremy Dolman at the 13W-14W-F1 (side plate) in the vertical (3G) position. The welder was using the Carbon Arc Cutting (CAC) process to excavate one repair that was found by QC using the Ultrasonic Testing method (UT). The location of this repair was at Y-450mm. The excavation measurements were as follows;

Length-110mm
Depth-13mm
Width- 20mm

The welder was grinding the cavity to a bright metal. The location was still in process at the end of this QAI's shift.

The QAI observed welder Rory Hogan at the 13W/14W-E1-E2 (side plate) in the overhead (4G) position. The welder was setting up the semi-automated Plasma Cutting process to perform the backing bar removal and back gouge of the CJP weld. This QAI noted that the Plasma equipment was set up with the Bug O system. The welder would be making multiple passes at this location to remove the backing bar. The welder was working this location with this process until the end of the shift.

QA Observation and Verification Summary

The QA inspector observed the QC activities and the welding utilizing the WPS's as noted above, which appeared to be posted at the weld station. The welding parameters and surface temperatures were verified by the QC inspectors utilizing a Fluke 337 clamp meter for the electrical welding parameters and a Fluke 63 IR Thermometer for verifying the preheat and interpass temperatures. The consumables utilized for the welding process stated appeared to comply with the AWS Specification and AWS Classification. The QC inspection, testing and welding performed on this shift appeared to be in general compliance with the contract documents. At random intervals, the QAI verified the QC inspection, testing, welding parameters and the surface temperatures utilizing various inspection equipment and gages which included a Fluke 337 Clamp Meter and Tempilstik Temperature indicators.

Unless noted otherwise, all work observed on this date appeared to be in general compliance with the contract documents at the time of observations.

WELDING INSPECTION REPORT

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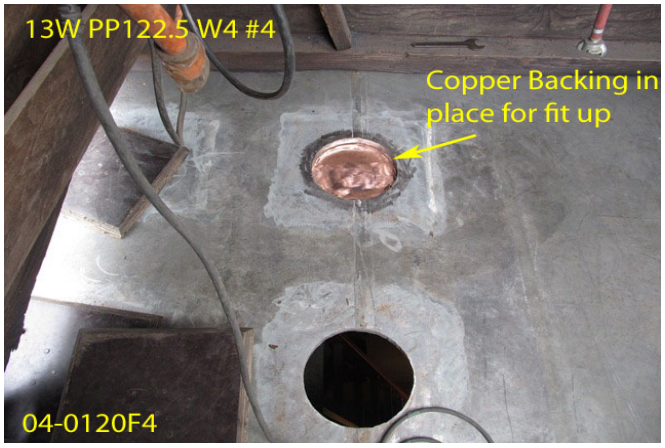

Summary of Conversations:

Basic conservation, fundamental to completion of the tasks at hand, occurred between this QAI and ABF QC personnel.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Riley,Ken	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer